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APPLICATION NO. FILING DATE 09/297,648

FIRST NAMED INVENTOR 03/10/00

WILLIAMS

ATTORNEY DOCKET NO. 2300-1481CIP

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HM12/11297

EXAMINER BRUSCA, J

ART UNIT PAPER NUMBER 1631

DATE MAILED:

11/29/00

Please find below and/or attached an Office communication concerning this application or

Commissioner of Patents and Trademarks

PTO-90C (Rev. 2/95)

1- File Copy

Office Action Summary	Application No.	Applicant(s)
	09/297,648	WILLIAMS ET AL.
	Examiner	Art Unit
	John S. Brusca	1631
The MAILING DATE of this communication appears on the cover she twith the correspondence address Period for Reply		
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.		
 Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Status 		
1) Responsive to communication(s) filed on 30 August 2000.		
2a) ☐ This action is FINAL . 2b) ☑ This action is non-final.		
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.		
Disposition of Claims		
4)⊠ Claim(s) <u>22-111</u> is/are pending in the application.		
4a) Of the above claim(s) is/are withdrawn from consideration.		
5) Claim(s) is/are allowed.		
6)⊠ Claim(s) <u>22-111</u> is/are rejected.		
7) Claim(s) is/are objected to.		
8) Claims are subject to restriction and/or election requirement.		
Application Papers		
9) The specification is objected to by the Examiner.		
10) The drawing(s) filed on is/are objected to by the Examiner.		
11) The proposed drawing correction filed on is: a) approved b) disapproved.		
12) The oath or declaration is objected to by the Examiner.		
Priority under 35 U.S.C. § 119		
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).		
a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:		
1. received.		
2. received in Application No. (Series Code / Serial Number)		
3. received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).		
* See the attached detailed Office action for a list of the certified copies not received.		
14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).		
Attachment(s)	•	
15) Notice of References Cited (PTO-892)		y (PTO-413) Paper No(s)
 16) Notice of Draftsperson's Patent Drawing Review (PTO-948) 17) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1 		Patent Application (PTO-152) leposit suggestion.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group 1 in Paper No. 8 is acknowledged. The traversal is on the ground(s) that the search for the nucleic acids and polypeptides of group 1 is the same as the search of the computer readable data of Group 2. This is not found persuasive because the search is not coextensive since searches of nucleic acids may not result in evidence of their existence in a computer database.

The requirement is still deemed proper and is therefore made FINAL.

Originally filed claims 1-21 have been cancelled by the Applicants in the Amendment received 8/30/00 and newly filed claims 22-101 are drawn to the elected invention and SEQ ID NOS.

Priority

2. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification (37 CFR 1.78).

The Applicants appear to intend to claim the benefit of a series of provisional applications as stated in the Rule 63 Declaration. However, the first sentence of the specification must be amended to state that the instant application claims the benefit of these provisionals. The Applicants are requested to use the language "claims the benefit of" rather than to claim "priority to" when claiming provisional applications as discussed in MPEP 201.11.

For the purpose of examination the individual elected SEQ ID NOS have been granted the priority date as stated in Table 1 of the instant specification.

Specification

3. The disclosure is objected to because of the following informalities:

Page 638 of the specification is missing.

Appropriate correction is required.

4. The computer readable form of the Sequence Listing has been entered without errors.

The term "degenerate variant' appearing in several of the claims appears in the specification on page 3, line 3, and has been interpreted broadly to mean any sequence variant.

Claim Rejections - 35 USC 101 and 112

<u>Definitions: [from REVISED INTERIM UTILITY GUIDELINES TRAINING MATERIALS; repeated from http://www.uspto.gov/web/menu/utility.pdf]</u>

"Credible Utility" - Where an applicant has specifically asserted that an invention has a particular utility, that assertion cannot simply be dismissed by Office personnel as being "wrong". Rather, Office personnel must determine if the assertion of utility is credible (i.e., whether the assertion of utility is believable to a person of ordinary skill in the art based on the totality of evidence and reasoning provided). An assertion is credible unless (A) the logic underlying the assertion is seriously flawed, or (B) the facts upon which the assertion is based is inconsistent with the logic underlying the assertion. Credibility as used in this context refers to the reliability of the statement based on the logic and facts that are offered by the applicant to support the assertion of utility. A *credible* utility is assessed from the standpoint of whether a person of ordinary skill in the art would accept that the recited or disclosed invention is currently available for such use. For example, no perpetual motion machines would be considered to be currently available. However, nucleic acids could be used as probes, chromosome markers, or forensic or diagnostic markers. Therefore, the credibility of such an assertion would not be questioned, although such a use might fail the *specific* and *substantial* tests (see below).

"Specific Utility" - A utility that is *specific* to the subject matter claimed. This contrasts with a *general* utility that would be applicable to the broad class of the invention. For example, a claim to a polynucleotide whose use is disclosed simply as a "gene probe" or "chromosome marker" would not be considered to be *specific* in the absence of a disclosure of a specific DNA target. Similarly, a general statement of diagnostic utility, such as diagnosing an unspecified disease, would ordinarily be insufficient absent a disclosure of what condition can be diagnosed.

"Substantial utility" - A utility that defines a "real world" use. Utilities that require or constitute carrying out further research to identify or reasonably confirm a "real world" context of use are not

substantial utilities. For example, both a therapeutic method of treating a known or newly discovered disease and an assay method for identifying compounds that themselves have a "substantial utility" define a "real world" context of use. An assay that measures the presence of a material which has a stated correlation to a predisposition to the onset of a particular disease condition would also define a "real world" context of use in identifying potential candidates for preventive measures or further monitoring. On the other hand, the following are examples of situations that require or constitute carrying out further research to identify or reasonably confirm a "real world" context of use and, therefore, do not define "substantial utilities":

- A. Basic research such as studying the properties of the claimed product itself or the mechanisms in which the material is involved.
- B. A method of treating an unspecified disease or condition. (Note, this is in contrast to the general rule that treatments of specific diseases or conditions meet the criteria of 35 U.S.C. '101.) C. A Method of assaying for or identifying a material that itself has no "specific and/or substantial utility."
- D. A method of making a material that itself has no specific, substantial, and credible utility. E. A claim to an intermediate product for use in making a final product that has no specific, substantial, and credible utility.

Note that "throw away" utilities do not meet the tests for a specific or *substantial* utility. For example, using transgenic mice as snake food is a utility that is neither specific (all mice could function as snake food) nor substantial (using a mouse costing tens of thousands of dollars to produce as snake food is not a "real world" context of use). Similarly, use of any protein as an animal food supplement or a shampoo ingredient are "throw away" utilities that would not pass muster as specific or substantial utilities under 35 U.S.C. ' 101. This analysis should, or course, be tempered by consideration of the context and nature of the invention. For example, it a transgenic mouse was generated with the specific provision of an enhanced nutrient profile, and disclosed for use as an animal food, then the test for specific and substantial *asserted* utility would be considered to be met.

A "Well established utility" - a specific, substantial, and credible utility which is well known, immediately apparent, or implied by the specification's disclosure of the properties of a material, alone or taken with the knowledge of one skilled in the art. "Well established utility" does not encompass any "throw away" utility that one can dream up for an invention or a nonspecific utility that would apply to virtually every member of a general class of materials, such as proteins or DNA. If this is the case, any product or apparatus, including perpetual motion machines, would have a "well established utility" as landfill, an amusement device, a toy, or a paper weight; any carbon containing molecule would have a "well established utility" as a fuel since it can be burned; any protein would have well established utility as a protein supplement for animal food. This is not the intention of the statute.

See also the MPEP at 2107 - 2107.02.

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 40-66, and 85-102 are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility.

The claimed nucleic acid and protein compounds are not supported by a specific asserted utility because the disclosed uses of the nucleic acids and proteins are not specific and are generally applicable to any nucleic acid or protein. The specification states that the nucleic acid compounds may be useful as probes for assisting in the isolation of full-length cDNAs or genes which would be used to make protein and optionally further usage to make the corresponding antibodies, gene mapping, isolation of homologous sequences, detection of gene expression such as in Northern blot analysis, molecular weight markers, chromosomal markers, and for numerous other generic genetic engineering usages. Similarly, protein may be used for detection of expression, antibody production, Western blots, etc. These are non-specific uses that are applicable to nucleic acids and proteins in general and not particular or specific to the nucleic acids and proteins being claimed.

Further, the claimed nucleic acid and protein compounds are not supported by a substantial utility because no substantial utility has been established for the claimed subject matter. For example, a nucleic acid may be utilized to obtain a protein. The protein could then be used in conducting research to functionally characterize the protein. The need for such research clearly indicates that the protein and/or its function is not disclosed as to a currently available or substantial utility. A starting material that can only be used to produce a final product does not have substantial asserted utility in those instances where the final product is not supported by a specific and substantial utility. In this case, none of the proteins that are to be produced as final products resulting from processes involving claimed nucleic acids have specific and substantial utilities. The research contemplated by applicant(s) to characterize potential protein products.

especially their biological activities, does not constitute a specific and substantial utility. Identifying and studying the properties of a protein itself or the mechanisms in which the protein is involved does not define a "real world" context or use. Similarly, the other listed and asserted utilities as summarized above or in the instant specification are neither substantial nor specific due to being generic in nature and applicable to a myriad of such compounds. Note, because the claimed invention is not supported by a specific and substantial asserted utility for the reasons set forth above, credibility of the utility has not been assessed. Neither the specification as filed nor any art of record discloses or suggests any property or activity for the nucleic acid and/or protein compound(s) such that another non-asserted utility would be well established for the compounds.

It is noted that applicant(s) have listed a sequence which is known in the prior art and which has a high percentage sequence similarity to a claimed sequence. Absent factual evidence, a percentage sequence similarity of less than 100 % is not deemed to reasonably support to one skilled in the art whether the biochemical activity of the claimed subject matter would be the same as that of such a similar known biomolecule. It is known for nucleic acids as well as proteins, for example, that even a single nucleotide or amino acid change or mutation can destroy the function of the biomolecule in many instances, albeit not in all cases. The effects of these changes are largely unpredictable as to which ones have a significant effect versus not. Therefore, the citation of sequence similarity results in an unpredictable and therefore unreliable correspondence between the claimed biomolecule and the indicated similar biomolecule of known function and therefore lacks support regarding utility and/or enablement. Several publications document this unpredictability of the relationship between sequence and function, albeit

that certain specific sequences may be found to be conserved over biomolecules of related function upon a significant amount of further research.

- 3. It is noted that SEQ ID NOS: 65, 253, 1780, 1899, and 2007 have a disclosed specific utility as a diagnostic since the specification establishes that they are differentially expressed in cancer cells.
- 4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- 5. Claims 40-66 and 85-102 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.
- 6. Claims 25, 34, 43, 52, 61, 70, 79, 88, 97, and 106 are rejected under 35 U.S.C.

 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 25, 34, 43, 52, 61, 70, 79, 88, 97, and 106 are drawn to deposited cell strains. The conditions of deposit for the claimed cells are described in the specification on pages 131-132. The conditions for deposit do not satisfy the requirements of 37 CFR 1.808. In particular, a statement has not been made that restrictions will be irrevocably removed upon granting of the patent. See MPEP §§ 2410 and 2410.01 and the attached suggestions for deposit of biological material.

7. Claims 22-111 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a written description rejection.

The specification discloses SEQ ID NO: 65, 253, 329, 739, 1186, 1780, 1899, 1938, 1998, and 2007 which are less than full length cDNA. SEQ ID NOS: 65, 253, 329, 739, 1186, 1780, 1899, 1938, 1998, and 2007 meet the written description provisions of 35 USC 112, first paragraph. However, claims 22-111 are directed to full length cDNA, sequences that hybridize to SEQ ID NOS: 65, 253, 329, 739, 1186, 1780, 1899, 1938, 1998, and 2007, sequences from other species, mutated sequences, allelic variants, and splice variants. None of these sequences meet the written description provision of 35 USC 112, first paragraph. The specification provides insufficient written description to support the genus encompassed by the claim.

<u>Vas-Cath Inc. v. Mahurkar</u>, 19 USPQ2d 1111, makes clear that "applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession *of the invention*. The invention is, for purposes of the 'written description' inquiry, *whatever is now claimed*." (See page 1117.) The specification does not "clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." (See <u>Vas-Cath</u> at page 1116.)

With the exception of SEQ ID NOS: 65, 253, 329, 739, 1186, 1780, 1899, 1938, 1998, and 2007, the skilled artisan cannot envision the detailed chemical structure of the encompassed polynucleotides and/or proteins, regardless of the complexity or simplicity

of the method of isolation. Adequate written description requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it. The nucleic acid itself is required. See <u>Fiers v. Revel</u>, 25 USPQ2d 1601, 1606 (CAFC 1993), and <u>Amgen Inc. V. Chugai Pharmaceutical Co. Ltd.</u>, 18 USPQ2d 1016. In <u>Fiddes v. Baird</u>, 30 USPQ2d 1481, 1483, claims directed to mammalian FGF's were found unpatentable due to lack of written description for the broad class. The specification provided only the bovine sequence.

Finally, <u>University of California v. Eli Lilly and Co.</u>, 43 USPQ2d 1398, 1404, 1405 held that:

To fulfill the written description requirement, a patent specification must describe an invention and do so in sufficient detail that one skilled in the art can clearly conclude that "the inventor invented the claimed invention." *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (1997); In *re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989) (" [T]he description must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed."). Thus, an applicant complies with the written description requirement "by describing the invention, with all its claimed limitations, not that which makes it obvious," and by using "such descriptive means as words, structures, figures, diagrams, formulas, etc., that set forth the claimed invention." *Lockwood*, 107 F.3d at 1572, 41 USPQ2d at 1966.

An adequate written description of a DNA, such as the cDNA of the recombinant plasmids and microorganisms of the '525 patent, "requires a precise definition, such as by structure, formula, chemical name, or physical properties," not a mere wish or plan for obtaining the claimed chemical invention. *Fiers v. Revel*, 984 F.2d 1164, 1171, 25 USPQ2d 1601, 1606 (Fed. Cir. 1993). Accordingly, "an adequate written description of a DNA requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it; what is required is a description of the DNA itself." Id. at 1170, 25 USPQ2d at 1606.

The name cDNA is not itself a written description of that DNA; it conveys no distinguishing information concerning its identity. While the example provides a process for obtaining human insulin-encoding cDNA, there is no further information in the patent pertaining to that cDNA's relevant structural or physical characteristics; in other words, it thus does not describe human insulin cDNA. Describing a method of preparing a cDNA or even describing the protein that the cDNA encodes, as the example does, does not necessarily describe the cDNA itself. No sequence information indicating which nucleotides constitute human cDNA appears in the patent, as appears for rat cDNA in

Example 5 of the patent. Accordingly, the specification does not provide a written description of the invention of claims 22-111.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 9. Claims 22-24 are rejected under 35 U.S.C. 102(a) as being anticipated by GenBank Accession Number AA444267.

The claims are drawn to polynucleotides comprising at least 15 contiguous nucleotides of SEQ ID NO:65.

GenBank Accession Number AA444267 show in the provided lineup a sequence that has at least 15 contiguous nucleotides of SEQ ID NO: 65.

10. Sets of claims 31-33, 40-42, 49-51, 58-60, 67-69, 76-78, 88-87, 94-96, and 103-105 are rejected under 35 U.S.C. 102(b) as being anticipated by GenBank Accession Numbers W94391, H43467, W66607, AA114761, HSU36478, HSU14990, HSRNAP14K, RRU48288, and U01137, respectively.

Sets of claims 31-33, 40-42, 49-51, 58-60, 67-69, 76-78, 88-87, 94-96, and 103-105 are drawn to polynucleotides comprising at least 15 contiguous nucleotides of SEQ ID NOS: 253, 329, 739, 1186, 1780, 1899, 1938, 1998, and 2007, respectively.

GenBank Accession Numbers W94391, H43467, W66607, AA114761, HSU36478, HSU14990, HSRNAP14K, RRU48288, and U01137 show in the provided lineups a sequence that has at least 15 contiguous nucleotides of SEQ ID NOS: 253, 329, 739, 1186, 1780, 1899, 1938, 1998, and 2007, respectively.

Claim Rejections - 35 USC § 103

- 11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
- 13. Sets of claims 26-29, 35-38, 44-47, 53-56, 62-65, 71-74, 80-83, 89-92, 98-101, and 107-110 are rejected under 35 U.S.C. 103(a) as being unpatentable over GenBank Accession Numbers AA444267, W94391, H43467, W66607, AA114761, HSU36478, HSU14990, HSRNAP14K, RRU48288, and U01137, each in view of Yang et al.

Sets of claims 26-29, 35-38, 44-47, 53-56, 62-65, 71-74, 80-83, 89-92, 98-101, and 107-110 are drawn to host cells and vectors comprising SEQ ID NOS: 65, 253, 329, 739, 1186, 1780, 1899, 1938, 1998, and 2007, respectively, polypeptides encoded by the SEQ ID NOS, and methods of expressing and recovering the encoded polypeptide from the host cells.

Yang et al. shows in the results on pages 1153-1154 the use of a yeast two-hybrid assay to measure the affinity of a library of peptides expressed from vectors to a target protein. Yang et al. shows on pages 1154-1155 the measurement of isolated peptides for affinity to a target protein. Yang et al. shows throughout the usefulness of yeast two-hybrid assays to determine whether a candidate peptide binds a target protein. Yang et al. shows an in vitro assay of binding of isolated peptides to a target protein.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the nucleic acid sequences of comprising SEQ ID NOS: 65, 253, 329, 739, 1186, 1780, 1899, 1938, 1998, and 2007 as taught in over GenBank Accession Numbers AA444267, W94391, H43467, W66607, AA114761, HSU36478, HSU14990, HSRNAP14K, RRU48288, and U01137, respectively in the yeast two-hybrid assay of Yang et al. because Yang et al. shows that their assay allows for a determination of binding to a target protein. It would have been further obvious to isolate the encoded proteins of the SEQ ID NOS to test for binding to target proteins in vitro as taught by Yang et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John S. Brusca whose telephone number is (703) 308-4231. The examiner can normally be reached on Monday-Friday 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Woodward can be reached on (703) 308-4028. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7939 for regular communications and (703) 305-7939 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

John S. Brusca Primary Examiner Art Unit 1631

jsb November 5, 2000

SUGGESTION FOR DEPOSIT OF BIOLOGICAL MATERIAL

A declaration by applicant or assignee, or a statement by applicant's agent identifying a deposit of biological material and averring the following may be sufficient to overcome an objection or rejection based on a lack of availability of biological material. Such a declaration:

- Identifies declarant.
- States that a deposit of the material has been made in a depository affording permanence
 of the deposit and ready accessibility thereto by the public if a patent is granted. The
 depository is to be identified by name and address.
- 3. States that the deposited material has been accorded a specific (recited) accession number.
- 4. States that all restrictions on the availability to the public of the material so deposited will be irrevocably removed upon the granting of the patent.
- 5. States that the material has been deposited under conditions that assure that access to the material will be available during the pendency of the patent application to one determined by the Commissioner to be entitled thereto under 37 C.F.R. 1.14 and 35 U.S.C. § 122.
- 6. States that the deposited material will be maintained with all the care necessary to keep it viable and uncontaminated for a period of at least five years after the most recent for a period of at least thirty (30) years after the deposited microorganism, and in any case, of the patent, whichever period is longer.
- 7. That he/she declares further that all statements made therein of his/her own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the instant patent application or any patent issuing thereon.

Alternatively, it may be averred that deposited material has been accepted for deposit under the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure (e.g., see 961 OG 21, 1977) and that all restrictions on the availability to the public of the material so deposited will be irrevocably removed upon the granting of a patent.

Additionally, the deposit must be referred to in the body of the specification and be identified by deposit (accession) number, date of deposit, name and address of the depository, and the complete taxonomic description.